

Title (en)

Apparatus for stereotactic radiotreatment of a moving target in a patient

Title (de)

Apparat zur stereotaktischen Radiotherapie eines bewegenden Zieles in einem Patienten

Title (fr)

Appareil pour la radiothérapie stéréotaxique d'une cible mobile dans un patient

Publication

**EP 0999876 A1 20000517 (EN)**

Application

**EP 98933022 A 19980706**

Priority

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- US 89605197 A 19970717

Abstract (en)

[origin: WO9903536A1] This invention is a method and apparatus for dynamic stereotactic radiotreatment and prevention of restenosis. A stent is implanted in a coronary artery following percutaneous trans-luminal coronary angio-plasty. Subsequent restenosis is minimized by external irradiation of the stent by ionizing radiation (40) such as gamma rays (42). The fact that the stent is significantly more opaque to x-rays than the surrounding tissue is exploited to track the stent using fluoroscopy, so that the ionizing radiation (40) can be aimed accurately at the stent. Preferably the fluoroscopic imaging (22), and the irradiation of the stent are synchronized with the patient's cardiac cycle. The external irradiation (40) may be performed hours or days after implanting the stent for prevention of restenosis, or weeks, or months after implanting the stent for treatment of restenosis, and may be fractionated.

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